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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/003,096

12/06/2001

Steven D. Roach

LT-140

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02/13/2003

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EXAMINER

VU, JIMMY T

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/003,096

Applicant(s)

ROACH, STEVEN D.

Examiner

Jimmy T Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 and 43-47 is/are rejected.
- 7) ☒ Claim(s) 35-38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2&3 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references listed on the information disclosure statement submitted on 12/06/2001 and 07/08/2002 have been considered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-34 and 43-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Lim (U.S. Patent number 6,026,108).

Regarding claims 26, Lim discloses a light emitting component comprising:

a light emitting element (20) disposed on a substrate (22) for emitting light (Figs. 1 and 15-19, col. 5, lines 56-62, col. 6, lines 32-40); and

an impedance network ( $50\Omega$ , C, L) disposed on the substrate (22) and coupled to the light emitting circuit (Figs. 1 and 15-20, col. 5, lines 56-62, col. 6, lines 32-40, col. 12, lines 15-33).

Regarding claim 27, Lim discloses the light emitting component wherein the light emitting element is a vertical cavity surface emitting laser (VCSEL) (20) (col. 5, lines 57-58, col. 6, line 40).

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Regarding claim 28, Lim discloses the light emitting component wherein the impedance network includes a resistor ( $50\Omega$ ) (Fig. 20, col. 12, lines 15-33).

Regarding claim 29, Lim discloses the light emitting component wherein the resistor is inherently adjustable.

Regarding claim 30, Lim discloses the light emitting component wherein the impedance network includes a capacitor ( C ) (Fig. 20, col. 12, lines 15-33).

Regarding claim 31, Lim discloses the light emitting component wherein the capacitor is inherently adjustable.

Regarding claim 32, Lim discloses the light emitting component wherein the impedance network includes an inductor (L) (Fig. 20, col. 12, lines 15-33).

Regarding claim 33, Lim discloses the light emitting component wherein the inductor is inherently adjustable.

Regarding claim 34, Lim discloses the circuit wherein the impedance network is formed, at least in part, from metal disposed on the surface of the substrate (Fig. 20).

Regarding claims 1-25 and 43-47, the method steps are necessitated by the device structure as it is disclosed by Lim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim (U.S. Patent number 6,026,108).

Regarding claims 35-38, Lim does not teach the impedance network is adjustable by the end-item user, at the wafer level, at the optical subassembly level, and at the module level. However, it would have been obvious to an ordinary skill in the art at the time of the invention was made to construct all of the methods of adjusting for impedance network as claimed, since it has been held to be the methods of engineering design choice.

***Allowable Subject Matter***

6. Claims 39-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the prior art teaches the light emitting component comprising the circuitry for establishing, and adjusting the current threshold and the slope efficiency of the light emitting component.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bryan et al and Kuchta disclosed related art.

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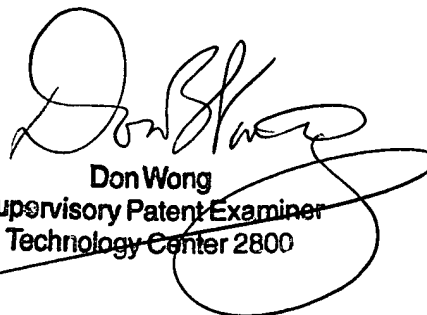
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Vu whose telephone number is (703) 306-5451. The examiner can normally be reached on Monday to Friday from 9:00am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (703) 308-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722 or (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Jimmy Vu

February 08, 2003

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800